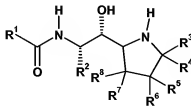


Amendments to the Claims

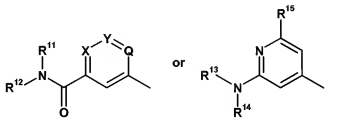
Claim 1. (original): A compound of Formula I:



I

where:

R¹ is (C₃-C₇ cycloalkyl)₀₋₁(C₁-C₆ alkyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkenyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkynyl) or C₃-C₇ cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆ alkoxy, C₃-C₇ cycloalkoxy, oxo, and NR⁹R¹⁰, hydrogen, biphenyl



substituted with halo,

X is CH, N, or N⁺-O⁻;

Y is CR¹⁶, N, or N⁺-O⁻;

Q is CR¹⁷, N, or N⁺-O⁻;

R² is C₁-C₃ alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl;

R³ is hydrogen or C₁-C₆ alkyl;

R⁴ is hydrogen, C₁-C₆ alkyl, or phenyl;

R³ and R⁴ taken together with the carbon to which they are attached form a C₃-C₆ cycloalkyl ring;

R⁵ is hydrogen, fluoro, trifluoromethyl, R³², or phenyl optionally monosubstituted with C₁-C₆ alkyl or C₁-C₆ alkoxy;

R⁶ is fluoro, hydroxy, p-toluenesulfonyloxy, R³⁴, -CH₂C(O)R³⁵, or -OC(O)NHR³⁶; or R⁵ and R⁶ taken together form =CHC(O)(C₁-C₄ alkoxy);

R⁷ is hydrogen or fluoro; or R⁶ and R⁷ taken together form a bond;

R⁸ is hydrogen or fluoro;

R⁹ is hydrogen, C₁-C₆ alkyl, or phenyl;

R¹⁰ is hydrogen, C₁-C₆ alkyl, phenyl, -C(O)(C₁-C₆ alkyl), or -SO₂(C₁-C₆ alkyl);

R¹¹ and R¹² are independently selected from the group consisting of methyl, ethyl, and propyl;

R¹³ is hydrogen or C₁-C₆ alkyl;

R¹⁴ is C₃-C₃ cycloalkyl, C₁-C₆ alkyl, or -CH₂R¹⁸;

R¹⁵ is -CF₂R¹⁹, -OR²⁰, -CH₂C(O)CH₃, -S(O)₁₋₂R²¹, -NR²²SO₂R²³, (C₁-C₃ alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C₁-C₃ alkyl;

R¹⁶ is hydrogen, chloro, isobutyl, CH₂R²⁴; CF₂R²⁵, 1,1,1-trifluoro-2-hydroxyethyl-2-yl, C₂-C₄ alkenyl optionally substituted with one or two fluorine atoms, OR²⁶, C(O)R²⁷, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R¹⁷ is hydrogen or fluoro;

R¹⁸ is ethynyl or cyclopropyl;

R¹⁹ is hydrogen or methyl;

R²⁰ is difluoromethyl or methanesulfonyl;

R²¹ is C₁-C₄ alkyl, C₃-C₆ cycloalkyl, phenyl, or -NR³⁰R³¹;

R²² is hydrogen, C₁-C₃ alkyl optionally substituted with up to 3 fluorine atoms, or C₃-C₆ cycloalkyl;

R²³ is C₁-C₃ alkyl or C₃-C₆ cycloalkyl;

R²⁴ is fluoro, hydroxy, or C₁-C₃ alkoxy;

R²⁵ is hydrogen, phenyl, or furyl;

R²⁶ is C₁-C₃ alkyl optionally substituted with one or two fluorine atoms;

R²⁷ is C₁-C₃ alkyl, C₃-C₅ cycloalkyl, C₂-C₃ alkenyl, C₁-C₃ alkoxy, NR²⁸R²⁹, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R²⁸ is hydrogen or methyl;

R²⁹ is methyl, ethyl, or propyl;

R³⁰ is hydrogen or methyl;

R³¹ is methyl; or

R³⁰ and R³¹ taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R³² is C₁-C₁₀ alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C₂-C₆ alkenyl, or -(CH₂)₀₋₃-R³³;

R³³ is C₃-C₇ cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo, C₁-C₆ alkyl, C₁-C₆ alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R³³ is adamantyl;

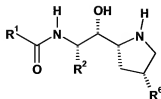
R³⁴ is hydrogen, R³², or -(CH₂)₀₋₂-OR³²;

R³⁵ is hydroxy, C₁-C₆ alkoxy, or NR³⁷R³⁸ where R³⁷ and R³⁸ are independently hydrogen or C₁-C₆ alkyl, or R³⁷ and R³⁸, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C₁-C₆ alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C₁-C₆ alkoxy)methyl;

R³⁶ is C₁-C₆ alkyl or adamantyl;

or a pharmaceutically acceptable salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N⁺-O⁻; and b) when X is CH, Y is CR¹⁶, and Q is CR¹⁷, then one of R¹⁶ and R¹⁷ is other than hydrogen.

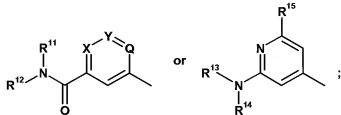
Claim 2 (original) A compound of Formula I(a):



I(a)

where:

R¹ is (C₃-C₇ cycloalkyl)₀₋₁(C₁-C₆ alkyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkenyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkynyl) or C₃-C₇ cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆ alkoxy, C₃-C₇ cycloalkoxy, oxo, and NR⁹R¹⁰, hydrogen, biphenyl



substituted with halo,

X is CH, N, or N⁺-O⁻;

Y is CR¹⁶, N, or N⁺-O⁻;

Q is CR¹⁷, N, or N⁺-O⁻;

R² is C₁-C₃ alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl;

R⁶ is fluoro, hydroxy, *p*-toluenesulfonyloxy, R³⁴, -CH₂C(O)R³⁵, or -OC(O)NHR³⁶; or R⁵ and R⁶ taken together form =CHC(O)(C₁-C₄ alkoxy);

R⁹ is hydrogen, C₁-C₆ alkyl, or phenyl;

R¹⁰ is hydrogen, C₁-C₆ alkyl, phenyl, -C(O)(C₁-C₆ alkyl), or -SO₂(C₁-C₆ alkyl);

R¹¹ and R¹² are independently selected from the group consisting of methyl, ethyl, and propyl;

R¹³ is hydrogen or C₁-C₆ alkyl;

R¹⁴ is C₃-C₅ cycloalkyl, C₁-C₆ alkyl, or -CH₂R¹⁸;

R¹⁵ is -CF₂R¹⁹, -OR²⁰, -CH₂C(O)CH₃, -S(O)₁₋₂R²¹, -NR²²SO₂R²³, (C₁-C₃ alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C₁-C₃ alkyl;

R¹⁶ is hydrogen, chloro, isobutyl, CH₂R²⁴, CF₂R²⁵, 1,1,1-trifluoro-2-hydroxyethyl-2-yl, C₂-C₄ alkenyl optionally substituted with one or two fluorine atoms, OR²⁶, C(O)R²⁷,

N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R¹⁷ is hydrogen or fluoro;

R¹⁸ is ethynyl or cyclopropyl;

R¹⁹ is hydrogen or methyl;

R²⁰ is difluoromethyl or methanesulfonyl;

R²¹ is C₁-C₄ alkyl, C₃-C₆ cycloalkyl, phenyl, or -NR³⁰R³¹;

R²² is hydrogen, C₁-C₃ alkyl optionally substituted with up to 3 fluorine atoms, or C₃-C₆ cycloalkyl;

R²³ is C₁-C₃ alkyl or C₃-C₆ cycloalkyl;

R²⁴ is fluoro, hydroxy, or C₁-C₃ alkoxy;

R²⁵ is hydrogen, phenyl, or furyl;

R²⁶ is C₁-C₃ alkyl optionally substituted with one or two fluorine atoms;

R²⁷ is C₁-C₃ alkyl, C₃-C₅ cycloalkyl, C₂-C₃ alkenyl, C₁-C₃ alkoxy, NR²⁸R²⁹, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R²⁸ is hydrogen or methyl;

R²⁹ is methyl, ethyl, or propyl;

R³⁰ is hydrogen or methyl;

R³¹ is methyl; or

R³⁰ and R³¹ taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R³² is C₁-C₁₀ alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C₂-C₆ alkenyl, or -(CH₂)₀₋₃-R³³;

R³³ is C₃-C₇ cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo, C₁-C₆ alkyl, C₁-C₆ alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R³³ is adamantyl;

R³⁴ is hydrogen, R³², or -(CH₂)₀₋₂-OR³²;

R³⁵ is hydroxy, C₁-C₆ alkoxy, or NR³⁷R³⁸ where R³⁷ and R³⁸ are independently hydrogen or C₁-C₆ alkyl, or R³⁷ and R³⁸, taken together with the nitrogen to which they are

attached, form a piperidine ring optionally substituted with C₁-C₆ alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C₁-C₆ alkoxy)methyl;

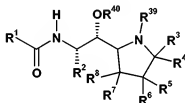
R³⁶ is C₁-C₆ alkyl or adamantyl;

or a pharmaceutically acceptable salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N⁺-O⁻; and b) when X is CH, Y is CR¹⁶, and Q is CR¹⁷, then one of R¹⁶ and R¹⁷ is other than hydrogen.

Claims 3-7 (cancelled)

Claim 8 (currently amended): A pharmaceutical formulation comprising a compound of ~~Claim 1~~ ~~either of Claims 1 or 2~~, in combination with a pharmaceutically acceptable carrier, diluent, or excipient.

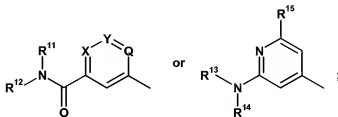
Claim 9 (original) A compound of Formula III:



III

where:

R¹ is (C₃-C₇ cycloalkyl)₀₋₁(C₁-C₆ alkyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkenyl), (C₃-C₇ cycloalkyl)₀₋₁(C₂-C₆ alkynyl) or C₃-C₇ cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆ alkoxy, C₃-C₇ cycloalkoxy, oxo, and NR⁹R¹⁰, hydrogen, biphenyl



substituted with halo,

X is CH, N, or N⁺-O⁻;

Y is CR¹⁶, N, or N⁺-O⁻;

Q is CR¹⁷, N, or N⁺-O⁻;

R² is C₁-C₃ alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl;

R³ is hydrogen or C₁-C₆ alkyl;

R⁴ is hydrogen, C₁-C₆ alkyl, or phenyl;

R³ and R⁴ taken together with the carbon to which they are attached form a C₃-C₆ cycloalkyl ring;

R⁵ is hydrogen, fluoro, trifluoromethyl, R³², or phenyl optionally monosubstituted with C₁-C₆ alkyl or C₁-C₆ alkoxy;

R⁶ is fluoro, hydroxy, *p*-toluenesulfonyloxy, R³⁴, -CH₂C(O)R³⁵, or -OC(O)NHR³⁶; or R⁵ and R⁶ taken together form =CHC(O)(C₁-C₄ alkoxy);

R⁷ is hydrogen or fluoro; or R⁶ and R⁷ taken together form a bond;

R⁸ is hydrogen or fluoro;

R⁹ is hydrogen, C₁-C₆ alkyl, or phenyl;

R¹⁰ is hydrogen, C₁-C₆ alkyl, phenyl, -C(O)(C₁-C₆ alkyl), or -SO₂(C₁-C₆ alkyl);

R¹¹ and R¹² are independently selected from the group consisting of methyl, ethyl, and propyl;

R¹³ is hydrogen or C₁-C₆ alkyl;

R¹⁴ is C₃-C₅ cycloalkyl, C₁-C₆ alkyl, or -CH₂R¹⁸;

R¹⁵ is -CF₂R¹⁹, -OR²⁰, -CH₂C(O)CH₃, -S(O)_{1,2}R²¹, -NR²²SO₂R²³, (C₁-C₃ alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C₁-C₃ alkyl;

R¹⁶ is hydrogen, chloro, isobutyl, CH₂R²⁴, CF₂R²⁵, 1,1,1-trifluoro-2-hydroxyethyl-2-yl, C₂-C₄ alkenyl optionally substituted with one or two fluorine atoms, OR²⁶, C(O)R²⁷, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-

dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R¹⁷ is hydrogen or fluoro;

R¹⁸ is ethynyl or cyclopropyl;

R¹⁹ is hydrogen or methyl;

R²⁰ is difluoromethyl or methanesulfonyl;

R²¹ is C₁-C₄ alkyl, C₃-C₆ cycloalkyl, phenyl, or -NR³⁰R³¹;

R²² is hydrogen, C₁-C₃ alkyl optionally substituted with up to 3 fluorine atoms, or C₃-C₆ cycloalkyl;

R²³ is C₁-C₃ alkyl or C₃-C₆ cycloalkyl;

R²⁴ is fluoro, hydroxy, or C₁-C₃ alkoxy;

R²⁵ is hydrogen, phenyl, or furyl;

R²⁶ is C₁-C₃ alkyl optionally substituted with one or two fluorine atoms;

R²⁷ is C₁-C₃ alkyl, C₃-C₅ cycloalkyl, C₂-C₃ alkenyl, C₁-C₃ alkoxy, NR²⁸R²⁹, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R²⁸ is hydrogen or methyl;

R²⁹ is methyl, ethyl, or propyl;

R³⁰ is hydrogen or methyl;

R³¹ is methyl; or

R³⁰ and R³¹ taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R³² is C₁-C₁₀ alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C₂-C₆ alkenyl, or -(CH₂)₀₋₃-R³³;

R³³ is C₃-C₇ cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo, C₁-C₆ alkyl, C₁-C₆ alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R³³ is adamantyl;

R³⁴ is hydrogen, R³², or -(CH₂)₀₋₂-OR³²;

R³⁵ is hydroxy, C₁-C₆ alkoxy, or NR³⁷R³⁸ where R³⁷ and R³⁸ are independently hydrogen or C₁-C₆ alkyl, or R³⁷ and R³⁸, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C₁-C₆ alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C₁-C₆ alkoxy)methyl;

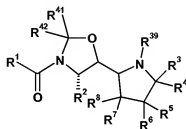
R^{36} is C_1 - C_6 alkyl or adamantyl;

R^{39} is hydrogen or a nitrogen protecting group;

R^{40} is hydrogen or an oxygen protecting group;

or an acid addition salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N^+-O^- ; b) when X is CH, Y is CR^{16} , and Q is CR^{17} , then one of R^{16} and R^{17} is other than hydrogen; and c) at least one of R^{39} and R^{40} is other than hydrogen.

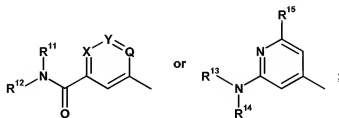
Claim 10 (original): A compound of Formula IV:



IV

where:

R^1 is $(C_3$ - C_7 cycloalkyl) $_{0-1}$ (C_1 - C_6 alkyl), $(C_3$ - C_7 cycloalkyl) $_{0-1}$ (C_2 - C_6 alkenyl), $(C_3$ - C_7 cycloalkyl) $_{0-1}$ (C_2 - C_6 alkynyl) or C_3 - C_7 cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C_1 - C_6 alkoxy, C_3 - C_7 cycloalkoxy, oxo, and NR^9R^{10} , hydrogen, biphenyl



substituted with halo,

X is CH, N, or N^+-O^- ;

Y is CR^{16} , N, or N^+-O^- ;

Q is CR^{17} , N, or N^+-O^- ;

R^2 is C_1 - C_3 alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C_1 - C_6 alkoxy optionally substituted in the alkyl chain with C_3 - C_7 cycloalkyl, and C_1 - C_6 alkylthio optionally substituted in the alkyl chain with C_3 - C_7 cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected

from halo, C₁-C₆ alkoxy optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl, and C₁-C₆ alkylthio optionally substituted in the alkyl chain with C₃-C₇ cycloalkyl;

R³ is hydrogen or C₁-C₆ alkyl;

R⁴ is hydrogen, C₁-C₆ alkyl, or phenyl;

R³ and R⁴ taken together with the carbon to which they are attached form a C₃-C₆ cycloalkyl ring;

R⁵ is hydrogen, fluoro, trifluoromethyl, R³², or phenyl optionally monosubstituted with C₁-C₆ alkyl or C₁-C₆ alkoxy;

R⁶ is fluoro, hydroxy, p-toluenesulfonyloxy, R³⁴, -CH₂C(O)R³⁵, or -OC(O)NHR³⁶; or R⁵ and R⁶ taken together form =CHC(O)(C₁-C₄ alkoxy) or oxo;

R⁷ is hydrogen or fluoro; or R⁶ and R⁷ taken together form a bond;

R⁸ is hydrogen or fluoro;

R⁹ is hydrogen, C₁-C₆ alkyl, or phenyl;

R¹⁰ is hydrogen, C₁-C₆ alkyl, phenyl, -C(O)(C₁-C₆ alkyl), or -SO₂(C₁-C₆ alkyl);

R¹¹ and R¹² are independently selected from the group consisting of methyl, ethyl, and propyl;

R¹³ is hydrogen or C₁-C₆ alkyl;

R¹⁴ is C₃-C₅ cycloalkyl, C₁-C₆ alkyl, or -CH₂R¹⁸;

R¹⁵ is -CF₂R¹⁹, -OR²⁰, -CH₂C(O)CH₃, -S(O)₁₋₂R²¹, -NR²²SO₂R²³, (C₁-C₃ alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C₁-C₃ alkyl;

R¹⁶ is hydrogen, chloro, isobutyl, CH₂R²⁴, CF₂R²⁵, 1,1,1-trifluoro-2-hydroxyethyl-2-yl, C₂-C₄ alkenyl optionally substituted with one or two fluorine atoms, OR²⁶, C(O)R²⁷, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R¹⁷ is hydrogen or fluoro;

R¹⁸ is ethynyl or cyclopropyl;

R¹⁹ is hydrogen or methyl;

R²⁰ is difluoromethyl or methanesulfonyl;

R²¹ is C₁-C₄ alkyl, C₃-C₆ cycloalkyl, phenyl, or -NR³⁰R³¹;

R²² is hydrogen, C₁-C₃ alkyl optionally substituted with up to 3 fluorine atoms, or C₃-C₆ cycloalkyl;

R²³ is C₁-C₃ alkyl or C₃-C₆ cycloalkyl;

R²⁴ is fluoro, hydroxy, or C₁-C₃ alkoxy;

R²⁵ is hydrogen, phenyl, or furyl;

R²⁶ is C₁-C₃ alkyl optionally substituted with one or two fluorine atoms;

R²⁷ is C₁-C₃ alkyl, C₃-C₅ cycloalkyl, C₂-C₃ alkenyl, C₁-C₃ alkoxy, NR²⁸R²⁹, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R²⁸ is hydrogen or methyl;

R²⁹ is methyl, ethyl, or propyl;

R³⁰ is hydrogen or methyl;

R³¹ is methyl; or

R³⁰ and R³¹ taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R³² is C₁-C₁₀ alkyl optionally substituted with 1-6 fluorine atoms, oxo, or 1 or 2 hydroxy groups, C₂-C₆ alkenyl, or -(CH₂)₀₋₃-R³³;

R³³ is C₃-C₇ cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo, C₁-C₆ alkyl, C₁-C₆ alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R³³ is adamantyl;

R³⁴ is hydrogen, R³², or -(CH₂)₀₋₂-OR³²;

R³⁵ is hydroxy, C₁-C₆ alkoxy, or NR³⁷R³⁸ where R³⁷ and R³⁸ are independently hydrogen or C₁-C₆ alkyl, or R³⁷ and R³⁸, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C₁-C₆ alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C₁-C₆ alkoxy)methyl;

R³⁶ is C₁-C₆ alkyl or adamantyl;

R³⁹ is hydrogen or a nitrogen protecting group;

R⁴¹ and R⁴² are independently selected from methyl, ethyl, and propyl;

or an acid addition salt thereof; provided that no more than one of X, Y, and Q may be N or N⁺-O⁻.

Claim 11 (new): A method for the inhibition of production of A- β peptide comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.

Claim 12 (new): A method of inhibiting BACE in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.